

AMENDMENTS TO THE CLAIMS

The claims are not amended. A complete listing of the claims, including their current status identifier, is set forth below.

1-28. (Cancelled)

29. (Previously presented) An isolated polynucleotide, wherein said polynucleotide comprises a nucleic acid sequence encoding a G protein-coupled receptor comprising the amino acid sequence of SEQ ID NO: 16.

30-41. (Cancelled)

42. (Previously presented) An isolated polynucleotide comprising the nucleotide sequence of SEQ ID NO: 15.

43. (Cancelled)

44. (Previously presented) An isolated polynucleotide, wherein said polynucleotide comprises a nucleic acid sequence encoding a G protein-coupled receptor, wherein said G protein-coupled receptor comprises an amino acid sequence that is at least 90% identical to SEQ ID NO:16 and wherein said G protein-coupled receptor is capable of stimulating intracellular IP₃ accumulation in a constitutive manner.

45. (Previously presented) An isolated polynucleotide according to claim 44, wherein said G protein-coupled receptor comprises an amino acid sequence that is at least 95% identical to SEQ ID NO:16.

46. (Previously presented) A vector comprising a polynucleotide according to any one of claims 29, 42, 44 or 45.

47. (Previously presented) A vector according to claim 46, wherein said vector is an expression vector.

48. (Previously presented) A host cell comprising an expression vector according to claim 47.

49. (Previously presented) The host cell according to claim 48, wherein the host cell is mammalian.

50. (Previously presented) The host cell according to claim 49, wherein the mammalian host cell is selected from the group consisting of a 293 cell, a 293T cell, and a COS-7 cell.

51. (Previously presented) The host cell according to claim 48, wherein the host cell is a melanophore cell.

52. (Previously presented) A process for making a recombinant host cell comprising the steps of:

(a) transfecting an expression vector according to claim 47 into a suitable host cell;
and

(b) culturing the host cell under conditions which allow expression of a G protein-coupled receptor from the expression vector.

53. (Previously presented) The process according to claim 52, wherein the host cell is a mammalian host cell.

54. (Previously presented) The process according to claim 53, wherein the mammalian host cell is selected from the group consisting of a 293 cell, a 293T cell, and a COS-7 cell.

55. (Previously presented) The process according to claim 52, wherein the host cell is a melanophore cell.

56. (Previously presented) An isolated membrane of a recombinant host cell according to claim 52, wherein the isolated membrane comprises the G protein-coupled receptor.

57-61. (Cancelled)